

WHAT IS CLAIMED IS:

1                   1. A client wireless module, for handling communications to and from an  
2 access point wireless module, comprising:  
3            an 11b processing section, for processing at least data to be transmitted to the access  
4            point into representations of a transmit signal;  
5            an OFDM processing section, for processing at least a representation of a receive signal  
6            from the access point into receive data;  
7            at least one transmit antenna, coupled to the 11b processing section;  
8            at least one receive antenna, coupled to the OFDM processing section; and  
9            logic for routing information between a client and the client wireless module.

1                   2. The client wireless module of claim 1, wherein the at least one transmit  
2 antenna comprises a plurality of transmit antennas.

1                   3. The client wireless module of claim 1, wherein the at least one receive  
2 antenna comprises a plurality of receive antennas.

1                   4. A client wireless module, for handling communications to and from an  
2 access point wireless module, comprising:  
3            an OFDM processing section, for processing at least data to be transmitted to the access  
4            point into representations of a transmit signal;  
5            an 11b processing section, for processing at least a representation of a receive signal  
6            from the access point into receive data;  
7            at least one transmit antenna, coupled to the OFDM processing section;  
8            at least one receive antenna, coupled to the 11b processing section; and  
9            logic for routing information between a client and the client wireless module.

1                   5. The client wireless module of claim 4, wherein the at least one transmit  
2 antenna comprises a plurality of transmit antennas.

1                   6. The client wireless module of claim 4, wherein the at least one receive  
2 antenna comprises a plurality of receive antennas.

1                   7. An access point wireless module, for handling communications to and from  
2 a client wireless module, comprising:

3 an 802.11b processing section, for processing at least data to be transmitted to the client  
4 into representations of a transmit signal;  
5 an 802.11g processing section, for processing at least a representation of a receive signal  
6 from the client into receive data;  
7 at least one transmit antenna, coupled to the 802.11b processing section;  
8 at least one receive antenna, coupled to the 802.11g processing section; and  
9 logic for routing information between an access point and the access point wireless  
10 module.

1 8. The access point wireless module of claim 7, wherein the at least one  
2 transmit antenna comprises a plurality of transmit antennas.

1 9. The access point wireless module of claim 8, wherein the at least one  
2 receive antenna comprises a plurality of receive antennas.

1 10. An access point wireless module, for handling communications to and  
2 from a client wireless module, comprising:  
3 an 802.11g processing section, for processing at least data to be transmitted to the client  
4 into representations of a transmit signal;  
5 an 802.11b processing section, for processing at least a representation of a receive signal  
6 from the client into receive data;  
7 at least one transmit antenna, coupled to the 802.11g processing section;  
8 at least one receive antenna, coupled to the 802.11b processing section; and  
9 logic for routing information between an access point and the access point wireless  
10 module.

1 11. The access point wireless module of claim 10, wherein the at least one  
2 transmit antenna comprises a plurality of transmit antennas.

1 12. The access point wireless module of claim 10, wherein the at least one  
2 receive antenna comprises a plurality of receive antennas.

1 13. A method of wireless communication between a client device and an  
2 access point, wherein a client device is a wireless network station that is portable, mobile or  
3 portable and mobile, the method comprising:  
4 transmitting upstream data from the client device using an 802.11b protocol;

5 receiving the upstream data at the client device;  
6 transmitting downstream data from the access point using an 802.11g protocol; and  
7 receiving the downstream data at the client device.

1 14. A method of wireless communication between a first station and a second  
2 station, the method comprising:

3 at the first station, transmitting data packets to the second station using a first data  
4 modulation and a first data rate;

5 at the first station, transmitting acknowledgement packets to the second station in  
6 response to data packets received from the second station, using a first  
7 acknowledgement modulation and a first acknowledgement rate;

8 at the second station, transmitting data packets to the first station using a second data  
9 modulation and a second data rate; and

10 at the second station, transmitting acknowledgement packets to the first station in  
11 response to the data packets received from the first station, using a second  
12 acknowledgement modulation and a second acknowledgement rate,

13 wherein the first data rate is distinct from at least one of the second data rate, the first  
14 acknowledgement rate, or the second acknowledgement rate.

1 15. A method of claim 14, wherein the first data modulation is distinct from at  
2 least one of the second data modulation, the first acknowledgement modulation, or the second  
3 acknowledgement modulation.

1 16. A method of claim 14, wherein the first data modulation, the second data  
2 modulation, the first acknowledgement modulation, and the second acknowledgement  
3 modulation are selected from an 802.11b rate and an OFDM rate.

1 17. A method of claim 16, wherein at least one of the first data modulation,  
2 the second data modulation, the first acknowledgement modulation, and the second  
3 acknowledgement modulation is an 802.11b modulation and at least one of the modulations is  
4 an OFDM modulation.